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PRO

CITY OF EMPORIA

February 6, 2012

Ms. Janine Howard, Water Permit Writer
Virginia Department of Environmental Quality
Piedmont Regional Office
4949A Cox Road
Glen Allen, Virginia 23060

Re: VPDES Permit No. VA0020346 Renewal Application Corrections

Dear Ms. Howard,

Please find enclosed the corrections to the Discharge Renewal Application as requested in your letter dated January 30, 2012.

As discussed with you by telephone this morning, the effluent contains manganese that can interfere with the results of the chlorine sample analyses using the DPD method. I am enclosing the instructions from Hach that are used to prevent this interference along with the test results using the method described in the instructions. Using the interference method, all three sample analyses results were 0.00 mg/l. When we were chlorinating, we encountered this interference and had to use the method that I have enclosed.

If you should have any questions, please do not hesitate to contact me.

Again, thank you for all of your assistance.

Sincerely,

A handwritten signature in cursive script that reads "James L. Epps".

James L. Epps
Superintendent of Wastewater Treatment

Enclosures

Cc. Brian S. Thrower, City Manager
Linwood Pope, Director of Public Utilities
Wastewater File

FACILITY NAME AND PERMIT NUMBER:

Emporia WWTP VA0020346

Form Approved 1/14/99
OMB Number 2040-0086

WASTEWATER DISCHARGES:

If you answered "yes" to question A.8.a, complete questions A.9 through A.12 once for each outfall (including bypass points) through which effluent is discharged. Do not include information on combined sewer overflows in this section. If you answered "no" to question A.8.a, go to Part B, "Additional Application Information for Applicants with a Design Flow Greater than or Equal to 0.1 mgd."

A.9. Description of Outfall.

- a. Outfall number 001
- b. Location City of Emporia 23847
(City or town, if applicable) (Zip Code)
Greenville VA
(County) (State)
39° 40' 43' 77° 31' 35'
(Latitude) (Longitude)
- c. Distance from shore (if applicable) N/A ft.
- d. Depth below surface (if applicable) N/A ft.
- e. Average daily flow rate .801 mgd
- f. Does this outfall have either an intermittent or a periodic discharge? Yes ☒ No (go to A.9.g.)
- If yes, provide the following information:
- Number of times per year discharge occurs: _____
- Average duration of each discharge: _____
- Average flow per discharge: _____ mgd
- Months in which discharge occurs: _____
- g. Is outfall equipped with a diffuser? Yes ☒ No

A.10. Description of Receiving Waters.

- a. Name of receiving water Meherrin River
- b. Name of watershed (if known) Meherrin River/Falling Run
- United States Soil Conservation Service 14-digit watershed code (if known): Unknown
- c. Name of State Management/River Basin (if known): Chowan River/Dismal Swamp
- United States Geological Survey 8-digit hydrologic cataloging unit code (if known): 03010204
- d. Critical low flow of receiving stream (if applicable):
acute 10 cfs chronic 18.98 cfs
- e. Total hardness of receiving stream at critical low flow (if applicable): N/A mg/l of CaCO₃

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- c If the answer to B.5.b is "Yes," briefly describe, including new maximum daily inflow rate (if applicable).

- d. Provide dates imposed by any compliance schedule or any actual dates of completion for the implementation steps listed below, as applicable. For improvements planned independently of local, State, or Federal agencies, indicate planned or actual completion dates, as applicable. Indicate dates as accurately as possible.

| Implementation Stage | Schedule | Actual Completion |
|----------------------------|----------------|-------------------|
| | MM / DD / YYYY | MM / DD / YYYY |
| - Begin construction | ___/___/___ | ___/___/___ |
| - End construction | ___/___/___ | ___/___/___ |
| - Begin discharge | ___/___/___ | ___/___/___ |
| - Attain operational level | ___/___/___ | ___/___/___ |

- e. Have appropriate permits/clearances concerning other Federal/State requirements been obtained? ☐ Yes ☐ No

Describe briefly: _____

B.6. EFFLUENT TESTING DATA (GREATER THAN 0.1 MGD ONLY).

Applicants that discharge to waters of the US must provide effluent testing data for the following parameters. Provide the indicated effluent testing required by the permitting authority for each outfall through which effluent is discharged. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analysis conducted using 40 CFR Part 136 methods. In addition, this data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136. At a minimum, effluent testing data must be based on at least three pollutant scans and must be no more than four and one-half years old.

Outfall Number: 001

| POLLUTANT | MAXIMUM DAILY DISCHARGE | | AVERAGE DAILY DISCHARGE | | | ANALYTICAL METHOD | ML / MDL |
|---|-------------------------|-------|-------------------------|-------|-------------------|-------------------|-------------|
| | Conc. | Units | Conc. | Units | Number of Samples | | |
| CONVENTIONAL AND NONCONVENTIONAL COMPOUNDS. | | | | | | | |
| AMMONIA (as N) | <QL | mg/l | <QL | mg/l | 3 | SM4500NH3D | 0.10mg/l |
| CHLORINE (TOTAL RESIDUAL, TRC) | <QL | mg/l | <QL | mg/l | 3 | Hach 8167 | 0.10 mg/l |
| DISSOLVED OXYGEN | 12.1 | mg/l | 9.4 | mg/l | 365 | SM4500-OG | +/- .03mg/l |
| TOTAL KJELDAHL NITROGEN (TKN) | 5.23 | mg/l | 3.09 | mg/l | 3 | 351.2 | .50mg/l |
| NITRATE PLUS NITRITE NITROGEN | 8.79 | mg/l | 6.21 | mg/l | 3 | 353.2 | .05mg/l |
| OIL and GREASE | 5.0 | mg/l | 1.67 | mg/l | 3 | 1664A | 5.0mg/l |
| PHOSPHORUS (Total) | 3.05 | mg/l | 1.96 | mg/l | 3 | 365.1 | .10mg/l |
| TOTAL DISSOLVED SOLIDS (TDS) | 1250 | mg/l | 897 | mg/l | 3 | SM2540C | 10mg/l |
| OTHER | | | | | | | |

END OF PART B.

REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

City OF Emporia, W.W.T.P.

Total Chlorine Check for Permit Renewal

Source: Final Effluent Outfall 001

Sample Date: 2/1/12 Sample Time: 1035 Test Time: 1038

Cl₂: .02 mg/L HACH Interference Compensation for Mn⁴⁺ or Cr⁶⁺ .03 mg/L

.02 - .03 = -.01 mg/L Cl₂

ANALYST: James C. Page

Source: Final Effluent Outfall 001

Sample Date: 2/2/12 Sample Time: 1020 Test Time: 1023

Cl₂: .02 mg/L HACH Interference Compensation for Mn⁴⁺ or Cr⁶⁺ .02 mg/L

.02 - .02 = 0.0 mg/L Cl₂

ANALYST: James C. Page

Source: Final Effluent Outfall 001

Sample Date: 2/3/12 Sample Time: 1050 Test Time: 1054

Cl₂: .03 mg/L HACH Interference Compensation for Mn⁴⁺ or Cr⁶⁺ .05 mg/L

.03 - .05 = -.02 mg/L Cl₂

ANALYST: James C. Page

Method: HACH 8167 DPD pillows 0 to 2.00 mg/l Spectrophotometer: HACH DR/2000

Colorimeter Certification with HACH Speck Check

Speck Check Actual 0 .23 +/- .09 .89 +/- .10 1.62 +/- .14

DR/2000 Reading 0 .23 .91 1.68

CHLORINE, TOTAL, continued

ACCURACY CHECK

Standard Additions Method

- Snap the top off the Chlorine Voluette Ampule Standard Solution.
- Use the TenSette Pipet to add 0.1, 0.2, and 0.3 mL of standard to three 25-mL samples. Swirl gently to mix. (For AccuVac Ampuls, use 50-mL beakers.)
- Analyze each sample as described above. Each 0.1 mL of standard will cause a incremental increase in chlorine, the exact value of which depends of the concentration in the Voluette. Check the certificate enclosed with the Voluettes for this value.
- If these increases do not occur, see Standard Additions in Section I for more information.

PRECISION

In a single laboratory, using a standard solution of 1.00 mg/L chlorine and two lots of reagents with the DR/2000, a single operator obtained standard deviations of ± 0.012 mg/L chlorine.

In a single laboratory, using a standard solution of 1.10 mg/L chlorine and two representative lots of AccuVac ampuls with the DR/2000, a single operator obtained a standard deviation of ± 0.009 mg/L chlorine.

INTERFERENCES

Samples containing more than 300 mg/L alkalinity or 150 mg/L acidity as CaCO_3 may not develop the full amount of color, or it may instantly fade. Neutralize these samples to a pH of 6 to 7 with 1 N sulfuric acid, or 1 N sodium hydroxide. Determine the amount required on a separate 25 mL sample. Add the same amount to the sample to be tested. Correct for volume additions.

Bromine, iodine, ozone and oxidized forms of manganese and chromium also may react and read as chlorine. To compensate for the effects of manganese (Mn^{4+}) or chromium (Cr^{6+}), adjust the pH to 6 to 7 as described above; then add 3 drops of potassium iodide, 30 g/L, to 25 mL of sample, mix and wait one minute. Add 3 drops of sodium arsenite, 5 g/L, and mix. Analyze this sample as described above. (If chromium is present, allow exactly the same reaction period with the DPD for both analyses.) Subtract the result of this test from the original analysis to obtain the accurate chlorine result.

DPD Total Chlorine Reagent Powder Pillows and AccuVac Ampuls contain a buffer formulation which will withstand high levels of hardness (at least 1000 mg/L) without interference.

SUMMARY OF METHOD

Chlorine can be present in water as free available chlorine and as combined available chlorine. Both forms can exist in the same water and be determined together as the total available chlorine. Free chlorine is present as hypochlorous acid and/or hypochlorite ion. Combined chlorine exists as monochloramine, dichloramine, nitrogen trichloride and other chloroderivatives. The combined chlorine oxidizes iodide in the reagent to iodine. The iodine reacts with DPD (N, N-diethyl-p-phenylenediamine) along with free chlorine present in the sample to form a red color which is proportional to the total chlorine concentration. To determine the concentration of combined chlorine, run a free chlorine test. Subtract the results from the results of the total chlorine test to obtain combined chlorine.

REQUIRED REAGENTS (Using Powder Pillows)

| Description | Quantity Required Per Test | Unit | Cat. No. |
|---|-------------------------------|---------------|----------|
| DPD Total Chlorine Reagent Powder Pillows | 1 pillow | 100/pkg | 14064-99 |

REQUIRED REAGENTS (Using AccuVac Ampuls)

| | | | |
|---|---------------|--------------|----------|
| DPD Total Chlorine Reagent AccuVac Ampuls | 1 ampul | 25/pkg | 25030-25 |
|---|---------------|--------------|----------|

REQUIRED APPARATUS (Using Powder Pillows)

| | | | |
|--|---------|--------------|---------|
| Clippers, for opening powder pillows | 1 | each | 968-00 |
| Stopper, rubber, No. 2 | 1 | 12/pkg | 2118-02 |

REQUIRED APPARATUS (Using AccuVac Ampuls)

| | | | |
|-----------------------------|---------|------------|----------|
| Adapter, AccuVac vial | 1 | each | 43784-00 |
| Beaker, 50 mL | 1 | each | 500-41 |
| Vial, zeroing | 1 | each | 21228-00 |

FACILITY NAME AND PERMIT NUMBER:

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SUPPLEMENTAL APPLICATION INFORMATION

PART F. INDUSTRIAL USER DISCHARGES AND RCRA/CERCLA WASTES

All treatment works receiving discharges from significant industrial users or which receive RCRA, CERCLA, or other remedial wastes must complete Part F.

GENERAL INFORMATION:

F.1. Pretreatment Program. Does the treatment works have, or is it subject to, an approved pretreatment program?

☐ Yes ☒ No

F.2. Number of Significant Industrial Users (SIUs) and Categorical Industrial Users (CIUs). Provide the number of each of the following types of industrial users that discharge to the treatment works.

a. Number of non-categorical SIUs. 1

b. Number of CIUs. 1

SIGNIFICANT INDUSTRIAL USER INFORMATION:

Supply the following information for each SIU. If more than one SIU discharges to the treatment works, copy questions F.3 through F.8 and provide the information requested for each SIU.

F.3. Significant Industrial User Information. Provide the name and address of each SIU discharging to the treatment works. Submit additional pages as necessary.

Name: Georgia Pacific

Mailing Address: 620 Davis Street
Emporia, Va 23847

F.4. Industrial Processes. Describe all of the industrial processes that affect or contribute to the SIU's discharge.

Plywood production. Plant Boiler System

F.5. Principal Product(s) and Raw Material(s). Describe all of the principal processes and raw materials that affect or contribute to the SIU's discharge.

Principal product(s): Plywood

Raw material(s): None

F.6. Flow Rate.

a. Process wastewater flow rate. Indicate the average daily volume of process wastewater discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

0 gpd (☐ continuous or ☐ intermittent)

b. Non-process wastewater flow rate. Indicate the average daily volume of non-process wastewater flow discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

10,800 gpd (☐ continuous or ☒ intermittent)

F.7. Pretreatment Standards. Indicate whether the SIU is subject to the following:

a. Local limits ☒ Yes ☐ No

b. Categorical pretreatment standards ☒ Yes ☐ No

If subject to categorical pretreatment standards, which category and subcategory?

Plywood production. Plant Boiler System

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F.8. Problems at the Treatment Works Attributed to Waste Discharged by the SIU. Has the SIU caused or contributed to any problems (e.g., upsets, interference) at the treatment works in the past three years?

☒ Yes ☐ No

If yes, describe each episode.

Georgia Pacific Solids discharge to sewer put us in violation of TSS & F-COLL limits for Oct 2011 also Sept 2011**RCRA HAZARDOUS WASTE RECEIVED BY TRUCK, RAIL, OR DEDICATED PIPELINE:**

F.9. RCRA Waste. Does the treatment works receive or has it in the past three years received RCRA hazardous waste by truck, rail, or dedicated pipe? ☐ Yes ☐ No (go to F.12.)

F.10. Waste Transport. Method by which RCRA waste is received (check all that apply):

☐ Truck☐ Rail☐ Dedicated Pipe

F.11. Waste Description. Give EPA hazardous waste number and amount (volume or mass, specify units).

EPA Hazardous Waste NumberAmountUnitsN/A**CERCLA (SUPERFUND) WASTEWATER, RCRA REMEDIATION/CORRECTIVE ACTION WASTEWATER, AND OTHER REMEDIAL ACTIVITY WASTEWATER:**

F.12. Remediation Waste. Does the treatment works currently (or has it been notified that it will) receive waste from remedial activities?

☐ Yes (complete F.13 through F.15.)☐ No

Provide a list of sites and the requested information (F.13 - F.15.) for each current and future site.

F.13. Waste Origin. Describe the site and type of facility at which the CERCLA/RCRA/or other remedial waste originates (or is expected to originate in the next five years).

F.14. Pollutants. List the hazardous constituents that are received (or are expected to be received). Include data on volume and concentration, if known. (Attach additional sheets if necessary).

F.15. Waste Treatment.

a. Is this waste treated (or will it be treated) prior to entering the treatment works?

☐ Yes ☐ No

If yes, describe the treatment (provide information about the removal efficiency):

b. Is the discharge (or will the discharge be) continuous or intermittent?

☐ Continuous☐ Intermittent

If intermittent, describe discharge schedule.

END OF PART F.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

FACILITY NAME: City of Emporia, WWTP

VPDES PERMIT NUMBER: VA0020346

9. **Certification.** Read and submit the following certification statement with this application. Refer to the instructions to determine who is an officer for purposes of this certification. Indicate which parts of the application you have completed and are submitting:

☒ Section A (General Information)

☒ Section B (Generation of Sewage Sludge or Preparation of a Material Derived from Sewage Sludge)

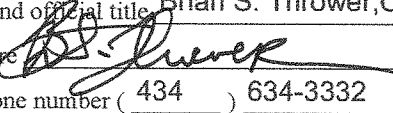
☐ Section C (Land Application of Bulk Sewage Sludge)

☒ Section D (Surface Disposal)

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Name and official title: Brian S. Thrower, City Manager

Signature



Date Signed

2/7/12

Telephone number (434) 634-3332

Upon request of the department, you must submit any other information necessary to assess sewage sludge use or disposal practices at your facility or identify appropriate permitting requirements.

4. Preparation of Sewage Sludge Meeting Ceiling and Pollutant Concentrations, Class A Pathogen Requirements and One of Vector Attraction Reduction Options 1-8 (EQ Sludge).

(If sewage sludge from your facility does not meet all of these criteria, skip Question 4.)

- a. Total dry metric tons per 365-day period of sewage sludge subject to this section that is applied to the land:
N/A dry metric tons
- b. Is sewage sludge subject to this section placed in bags or other containers for sale or give-away?
 Yes No

5. Sale or Give-Away in a Bag or Other Container for Application to the Land.

(Complete this question if you place sewage sludge in a bag or other container for sale or give-away prior to land application. Skip this question if sewage sludge is covered in Question 4.)

- a. Total dry metric tons per 365-day period of sewage sludge placed in a bag or other container at your facility for sale or give-away for application to the land: N/A dry metric tons
- b. Attach, with this application, a copy of all labels or notices that accompany the sewage sludge being sold or given away in a bag or other container for application to the land.

6. Shipment Off Site for Treatment or Blending.

(Complete this question if sewage sludge from your facility is sent to another facility that provides treatment or blending. This question does not apply to sewage sludge sent directly to a land application or surface disposal site. Skip this question if the sewage sludge is covered in Questions 4 or 5. If you send sewage sludge to more than one facility, attach additional sheets as necessary.)

- a. Receiving facility name: N/A
- b. Facility contact: _____
Title: _____
Phone: (_____) _____
- c. Mailing address:
Street or P.O. Box: _____
City or Town: _____ State: _____ Zip: _____
- d. Total dry metric tons per 365-day period of sewage sludge provided to receiving facility:
N/A dry metric tons
- e. List, on this form or an attachment, the receiving facility's VPDES permit number as well as the numbers of all other federal, state or local permits that regulate the receiving facility's sewage sludge use or disposal practices:
Permit Number: _____ Type of Permit: _____

- f. Does the receiving facility provide additional treatment to reduce pathogens in sewage sludge from your facility?
 Yes No
Which class of pathogen reduction is achieved for the sewage sludge at the receiving facility?
 Class A Class B Neither or unknown
Describe, on this form or another sheet of paper, any treatment processes used at the receiving facility to reduce pathogens in sewage sludge: _____

- g. Does the receiving facility provide additional treatment to reduce vector attraction characteristics of the sewage sludge? Yes No
Which vector attraction reduction option is met for the sewage sludge at the receiving facility?
 Option 1 (Minimum 38 percent reduction in volatile solids)

FACILITY NAME: City of Emporia, WWTP

VPDES PERMIT NUMBER: VA0020346

- ☐ Option 2 (Anaerobic process, with bench-scale demonstration)
☐ Option 3 (Aerobic process, with bench-scale demonstration)
☐ Option 4 (Specific oxygen uptake rate for aerobically digested sludge)
☐ Option 5 (Aerobic processes plus raised temperature)
☐ Option 6 (Raise pH to 12 and retain at 11.5)
☐ Option 7 (75 percent solids with no unstabilized solids)
☐ Option 8 (90 percent solids with unstabilized solids)
☐ None unknown

Describe, on this form or another sheet of paper, any treatment processes used at the receiving facility to reduce vector attraction properties of sewage sludge: _____

- h. Does the receiving facility provide any additional treatment or blending not identified in f or g above?
☐ Yes ☐ No

If "Yes", describe, on this form or another sheet of paper, the treatment processes not identified in f or g above: _____

- i. If you answered "Yes" to f, g or h above, attach a copy of any information you provide to the receiving facility to comply with the "notice and necessary information" requirement of 9 VAC 25-31-530.G.
j. Does the receiving facility place sewage sludge from your facility in a bag or other container for sale or give-away for application to the land? ☐ Yes ☐ No

If "Yes", provide a copy of all labels or notices that accompany the product being sold or given away.

- k. Will the sewage sludge be transported to the receiving facility in a truck-mounted watertight tank normally used for such purposes? ☐ Yes ☐ No. If "No", provide description and specification on the vehicle used to transport the sewage sludge to the receiving facility.

Show the haul route(s) on a location map or briefly describe the haul route below and indicate the days of the week and the times of the day sewage sludge will be transported.

7. Land Application of Bulk Sewage Sludge.

(Complete Question 7.a if sewage sludge from your facility is applied to the land, unless the sewage sludge is covered in Questions 4, 5 or 6. Complete Question 7.b, c & d only if you are responsible for land application of sewage sludge.)

- a. Total dry metric tons per 365-day period of sewage sludge applied to all land application sites:

N/A dry metric tons

- b. Do you identify all land application sites in Section C of this application? ☐ Yes ☐ No

If "No", submit a copy of the Land Application Plan (LAP) with this application (LAP should be prepared in accordance with the instructions).

- c. Are any land application sites located in States other than Virginia? ☐ Yes ☐ No

If "Yes", describe, on this form or on another sheet of paper, how you notify the permitting authority for the States where the land application sites are located. Provide a copy of the notification.

- d. Attach a copy of any information you provide to the owner or lease holder of the land application sites to comply with the "notice and necessary" information requirement of 9 VAC 25-31-530 F and/or H (Examples may be obtained in Appendix IV).

SECTION D. SURFACE DISPOSAL

Complete this section only if you own or operate a surface disposal site. Provide the information for each active sewage sludge unit.

1. Information on Active Sewage Sludge Units.

- a. Unit name or number: City of Emporia Sludge Pond (Lagoon)
- b. Unit location
- i. Street or Route#: 500 Tall Oaks Drive
County: Greensville
City or Town: Emporia State: VA Zip: 23847
- ii. Latitude: 36' 40' 43" Longitude: 77' 31' 35"
Method of latitude/longitude determination
☒ USGS map ☐ Filed survey ☐ Other
- c. Topographic map. Provide a topographic map (or other appropriate map if a topographic map is unavailable) that shows the site location.
- d. Total dry metric tons of sewage sludge placed on the active sewage sludge unit per 365-day period:
224.95 dry metric tons.
- e. Total dry metric tons of sewage sludge placed on the active sewage sludge unit over the life of the unit:
unknown dry metric tons.
- f. Does the active sewage sludge unit have a liner with a minimum hydraulic conductivity of 1×10^{-7} cm/sec?
☐ Yes ☒ No If "Yes", describe the liner or attach a description.

- g. Does the active sewage sludge unit have a leachate collection system? ☐ Yes ☒ No
If "Yes", describe the leachate collection system or attach a description. Also, describe the method used for leachate disposal and provide the numbers of any federal, state or local permits for leachate disposal:


























- h. If you answered "No" to either f or g, answer the following:
Is the boundary of the active sewage sludge unit less than 150 meters from the property line of the surface disposal site? ☒ Yes ☐ No If "Yes", provide the actual distance in meters: Unknown
- i. Remaining capacity of active sewage sludge unit, in dry metric tons: Unknown dry metric tons
Anticipated closure date for active sewage sludge unit, if known: Unknown (MM/DD/YYYY)
Provide with this application a copy of any closure plan developed for this active sewage sludge unit.

2. Sewage Sludge from Other Facilities.

Is sewage sludge sent to this active sewage sludge unit from any facilities other than yours? ☐ Yes ☒ No
If "Yes", provide the following information for each such facility, attach additional sheets as necessary.

- a. Facility name: _____
- b. Facility contact: _____
Title: _____
Phone: (_____) _____
- c. Mailing address: _____
Street or P.O. Box: _____
City or Town: _____ State: _____ Zip: _____

ATTACHMENT A
DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER QUALITY CRITERIA MONITORING

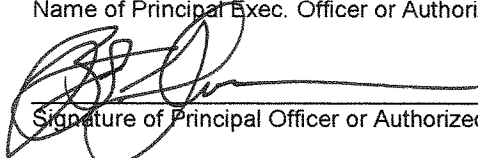
| CASRN# | CHEMICAL | EPA ANALYSIS NO. | QUANTIFICATION LEVEL ⁽¹⁾ | REPORTING RESULTS | SAMPLE TYPE ⁽²⁾ | SAMPLE FREQUENCY |
|-------------------------|--|------------------|-------------------------------------|-------------------|--|------------------|
| METALS | | | | | | |
| 7440-36-0 | Antimony, dissolved | (3) | 1.4 | 0.60 ug/l | G or  | 1/5 YR |
| 7440-38-2 | Arsenic, dissolved | (3) | 1.0 | 0.69 ug/l | G or  | 1/5 YR |
| 7440-43-9 | Cadmium, dissolved | (3) | 0.3 | 0.33 ug/l | G or  | 1/5 YR |
| 16065-83-1 | Chromium III, dissolved ⁽⁸⁾ | (3) | 3.6 | 0.50 ug/l | G or  | 1/5 YR |
| 18540-29-9 | Chromium VI, dissolved ⁽⁸⁾ | (3) | 1.6 | 0.50 ug/l | G or  | 1/5 YR |
| 7440-50-8 | Copper, dissolved | (3) | 0.50 | 5.6 ug/l | G or  | 1/5 YR |
| 7439-92-1 | Lead, dissolved | (3) | 0.50 | 0.50 ug/l | G or  | 1/5 YR |
| 7439-97-6 | Mercury, dissolved | (3) | 1.0 | N/D | G or  | 1/5 YR |
| 7440-02-0 | Nickel, dissolved | (3) | 0.94 | 2.3 ug/l | G or  | 1/5 YR |
| 7782-49-2 | Selenium, Total Recoverable | (3) | 2.0 | < 5.0 ug/l | G or  | 1/5 YR |
| 7440-22-4 | Silver, dissolved | (3) | 0.20 | < 0.5 ug/l | G or  | 1/5 YR |
| 7440-28-0 | Thallium, dissolved | (4) | (5) | < 0.10 ug/l | G or  | 1/5 YR |
| 7440-66-6 | Zinc, dissolved | (3) | 3.6 | 47.0 ug/l | G or  | 1/5 YR |
| PESTICIDES/PCB'S | | | | | | |
| 309-00-2 | Aldrin | 608 | 0.05 | < .005 ug/l | G or  | 1/5 YR |
| 57-74-9 | Chlordane | 608 | 0.2 | < 0.2 ug/l | G or  | 1/5 YR |
| 2921-88-2 | Chlorpyrifos (synonym = Dursban) | (4) | (5) | < 0.2 ug/l | G or  | 1/5 YR |
| 72-54-8 | DDD | 608 | 0.1 | < 0.1 ug/l | G or  | 1/5 YR |
| 72-55-9 | DDE | 608 | 0.1 | < QL | G or  | 1/5 YR |
| 50-29-3 | DDT | 608 | 0.1 | < 0.1 ug/l | G or  | 1/5 YR |
| 8065-48-3 | Demeton | (4) | (5) | < 1.0 ug/l | G or  | 1/5 YR |
| 333-41-5 | Diazinon | (4) | (5) | < 1.0 ug/l | G or  | 1/5 YR |
| 60-57-1 | Dieldrin | 608 | 0.1 | < .005 ug/l | G or  | 1/5 YR |
| 959-98-8 | Alpha-Endosulfan | 608 | 0.1 | < 0.1 ug/l | G or  | 1/5 YR |
| 33213-65-9 | Beta-Endosulfan | 608 | 0.1 | < .04 ug/l | G or  | 1/5 YR |
| 1031-07-8 | Endosulfan Sulfate | 608 | 0.1 | < .01 ug/l | G or  | 1/5 YR |

| CASRN# | CHEMICAL | EPA ANALYSIS NO. | QUANTIFICATION LEVEL ⁽¹⁾ | REPORTING RESULTS | SAMPLE TYPE ⁽²⁾ | SAMPLE FREQUENCY |
|----------------------------------|--|------------------|-------------------------------------|-------------------|----------------------------|-------------------|
| 72-20-8 | Endrin | 608 | 0.1 | < 0.1 ug/l | G or C | 1/5 YR |
| 7421-93-4 | Endrin Aldehyde | (4) | (5) | < 0.2 ug/l | G or C | 1/5 YR |
| 86-50-0 | Guthion | (4) | (5) | < 1.0 ug/l | G or C | 1/5 YR |
| 76-44-8 | Heptachlor | 608 | 0.05 | < 0.05 ug/l | G or C | 1/5 YR |
| 1024-57-3 | Heptachlor Epoxide | (4) | (5) | < 0.2 ug/l | G or C | 1/5 YR |
| 319-84-6 | Hexachlorocyclohexane Alpha-BHC | 608 | (5) | < 0.02 ug/l | G or C | 1/5 YR |
| 319-85-7 | Hexachlorocyclohexane Beta-BHC | 608 | (5) | < 0.05 ug/l | G or C | 1/5 YR |
| 58-89-9 | Hexachlorocyclohexane Gamma-BHC or Lindane | 608 | (5) | < 0.02 ug/l | G or C | 1/5 YR |
| 143-50-0 | Kepone | (9) | (5) | ND ug/l | G or C | 1/5 YR |
| 121-75-5 | Malathion | (4) | (5) | < 1.0 ug/l | G or C | 1/5 YR |
| 72-43-5 | Methoxychlor | (4) | (5) | < 2.0 ug/l | G or C | 1/5 YR |
| 2385-85-5 | Mirex | (4) | (5) | < 0.1 ug/l | G or C | 1/5 YR |
| 56-38-2 | Parathion | (4) | (5) | < 1.0 ug/l | G or C | 1/5 YR |
| 1336-36-3 | PCB Total | 608 | 7.0 | < 7.0 ug/l | G or C | 1/5 YR |
| 8001-35-2 | Toxaphene | 608 | 5.0 | < 3.0 ug/l | G or C | 1/5 YR |
| BASE NEUTRAL EXTRACTABLES | | | | | | |
| 83-32-9 | Acenaphthene | 625 | 10.0 | < 5.0 ug/l | G or C | < 5.0 ug/l 1/5 YR |
| 120-12-7 | Anthracene | 625 | 10.0 | < 5.0 ug/l | G or C | 1/5 YR |
| 92-87-5 | Benzidine | (4) | (5) | < 5.0 ug/l | G or C | 1/5 YR |
| 56-55-3 | Benzo (a) anthracene | 625 | 10.0 | < 5.0 ug/l | G or C | 1/5 YR |
| 205-99-2 | Benzo (b) fluoranthene | 625 | 10.0 | < 5.0 ug/l | G or C | 1/5 YR |
| 207-08-9 | Benzo (k) fluoranthene | 625 | 10.0 | < 5.0 ug/l | G or C | 1/5 YR |
| 50-32-8 | Benzo (a) pyrene | 625 | 10.0 | < 5.0 ug/l | G or C | 1/5 YR |
| 111-44-4 | Bis 2-Chloroethyl Ether | (4) | (5) | < 5.0 ug/l | G or C | 1/5 YR |
| 108-60-1 | Bis 2-Chloroisopropyl Ether | (4) | (5) | < 5.0 ug/l | G or C | 1/5 YR |
| 85-68-7 | Butyl benzyl phthalate | 625 | 10.0 | < 5.0 ug/l | G or C | 1/5 YR |
| 91-58-7 | 2-Chloronaphthalene | (4) | (5) | < 5.0 ug/l | G or C | 1/5 YR |
| 218-01-9 | Chrysene | 625 | 10.0 | < 5.0 ug/l | G or C | 1/5 YR |
| 53-70-3 | Dibenz(a,h)anthracene | 625 | 20.0 | < 5.0 ug/l | G or C | 1/5 YR |

| CASRN# | CHEMICAL | EPA ANALYSIS NO. | QUANTIFICATION LEVEL ⁽¹⁾ | REPORTING RESULTS | SAMPLE TYPE ⁽²⁾ | SAMPLE FREQUENCY |
|----------------------|--|------------------|-------------------------------------|-------------------|----------------------------|------------------|
| MISCELLANEOUS | | | | | | |
| 776-41-7 | Ammonia as NH3-N | 350.1 | 200 | 0.10 mg/l | C | 1/5 YR |
| 16887-00-6 | Chlorides | (4) | (5) | 67.9 mg/l | C | 1/5 YR |
| 7782-50-5 | Chlorine, Total Residual | (4) | 100 | < 0.10 mg/l | G | 1/5 YR |
| 57-12-5 | Cyanide, Free | (4) | 10.0 | < 5.0 ug/l | G | 1/5 YR |
| N/A | <i>E. coli</i> / <i>Enterococcus</i> (N/CML) | (4) | (5) | 22 N/CML | G | 1/5 YR |
| 7783-06-4 | Hydrogen Sulfide | (5) | (5) | < 20.0 ug/l | G | 1/5 YR |
| 60-10-5 | Tributyltin ⁽⁷⁾ | NBSR 85-3295 | (5) | ND | G or C | 1/5 YR |
| | Hardness (mg/L as CaCO ₃) | (4) | (5) | 101 mg/l | G or C (10) | 1/5 YR |

Brian S. Thrower, City Manager

Name of Principal Exec. Officer or Authorized Agent/Title

 2/7/12
Signature of Principal Officer or Authorized Agent/Date

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment for knowing violations. See 18 U.S.C. Sec. 1001 and 33 U.S.C. Sec. 1319. (Penalties under these statutes may include fines up to \$10,000 and or maximum imprisonment of between 6 months and 5 years.)

FOOTNOTES:

- (1) Quantification level (QL) is defined as the lowest concentration used for the calibration of a measurement system when the calibration is in accordance with the procedures published for the required method.

The quantification levels indicated for the metals are actually Specific Target Values developed for this permit. The Specific Target Value is the approximate value that may initiate a wasteload allocation analysis. Target values are not wasteload allocations or effluent limitations. The Specific Target Values are subject to change based on additional information such as hardness data, receiving stream flow, and design flows.

Units for the quantification level are micrograms/liter unless otherwise specified.

Quality control and quality assurance information shall be submitted to document that the required quantification level has been attained.

- (2) Sample Type

G = Grab = An individual sample collected in less than 15 minutes. Substances specified with "grab" sample type shall only be collected as grabs. The permittee may analyze multiple grabs and report

AUTHORIZATION TO BILL APPLICANT FOR
A PUBLIC NOTICE

I hereby authorize the Department of Environmental Quality to have the cost of publishing a public notice once a week for two consecutive weeks, seven days apart, in Independent Messenger, charged to:

Agent or Department to be billed: City of Emporia

201 South Main Street

Emporia, Virginia 23847

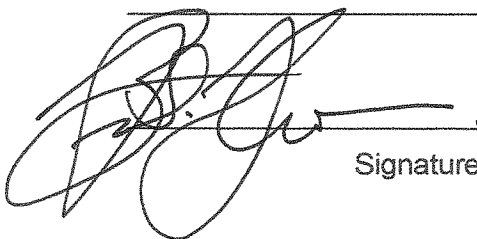
Agent's telephone number: 434-634-3332

Agent's address: City of Emporia WWTP

500 Tall Oaks Drive

Emporia ,VA 23847

Authorizing Agent:

 2/7/12
Signature

VPDES Permit Number VA0020346 – Emporia WWTP
Attention: Janine Howard